REMARKS

Claims 1, 3-7 and 9-11, all the claims pending in the application, stand rejected. Claim 1 is amended.

Withdrawal of Final Rejection

The Examiner has issued two new rejections that prevent the present Office Action from being considered final. Applicants respectfully submit that the finality must be removed under current USPTO rules.

First, the Examiner has rejected original claim 6 on the basis of a combination of two references under 35 U.S.C. § 103, while the previous rejection of original claim 6 was solely on the basis of anticipation under 35 USC § 102. The Examiner's changed rejection was not occasioned by Applicants amendment of the claims.

Second, the Examiner has formulated a new basis for rejection under 35 U.S.C. § 112, first and second paragraphs, on the basis of language in claims 1 and 7, as amended to incorporate the limitations of original claims 2 and 8 into original claims 1 and 7, respectively. This is a new rejection that is not necessitated by Applicants amendment of the claims, other than to place claims 2 and 8 into independent form. The Examiner should have raised this rejection in the first Office Action.

Since Applicant is entitled to respond to a new rejection of original claims, and these two rejections are new, the present Office Action cannot be made final. See MPEP 706.07(a). Moreover, the present amendment to the claims should be entered for purposes of further examination, allowance or appeal.

Claim Rejections - 35 USC 112

Claims 1-3, 5, 7 and 9-11 are rejected under 35 USC 112, first paragraph, as failing to comply with the enablement requirement. This rejection is traversed for at least the following reasons.

Claim 1

The Examiner notes that claim 1 specifies that the claimed fuel injection valve comprises "a cover arranged on an outer periphery of the casing, the cover being molded out of a soft resin containing a rubber." This is an original limitation in the claim. The Examiner also notes that further language in the claim specifies that "the casing is made of a metal, the outer periphery of the casing being molded out of a hard resin." This is the exact language from original claim 2. .

The Examiner points to the specification and drawings (Figs. 1A and 2), and notes that the cover 14/14' of soft resin conceals the envelope 12/12' of hard resin. The Examiner concludes that the outer periphery of the casing cannot be molded out of both soft resin and hard resin since the soft or hard resin would conceal the other. Similarly, for claim 7, the Examiner notes that the molding of the hard resin is on top of the soft resin.

As illustrated in Figs. 1A and 2 and disclosed at pages 3 and 5, the casing (1) is defined to have an "outer periphery" that is a hard resin envelope 12, and the outer periphery of the envelope 12 has formed thereon a soft resin cover 14.

The Examiner's confusion may lie in the use of the phrase "outer periphery" for both the casing (1) and the envelope (12) where the envelope is treated as part of the casing. Applicants have amended claim 1 to state that the envelope is a first layer and the cover is a second layer over the first layer.

Claim 7

The Examiner asserts that the same reasoning applies to claim 7. However, Applicants respectfully submit that the claim clearly states a step of forming a structure defined as "an outer periphery of the casing" by using a hard resin. Given this definition, the casing comprises an inner structure made of metal and an outer structure made of hard resin. The claim also states a step of molding a cover out of a soft resin which is "arranged on an outer periphery of the casing." This can only be the hard resin layer. There is no basis for confusion.

Claims 1-3-5, 7 and 9-11 are rejected under 35 USC 112, second paragraph. as being indefinite. This rejection is traversed for at least the following reasons.

Applying the analysis of the foregoing rejection, the Examiner finds the claims to be indefinite. The previous argument and amendments to the claims would overcome this rejection.

Claim rejections - 35 USC 102

Claims 1-3, 7 and 9 are rejected under 35 USC 102(b) as being anticipated by French et al. This rejection is traversed for at least the following reasons.

The invention, as illustrated in Figs. 1 and 3, is directed to a fuel injection valve having a casing 1 and a soft resin/rubber coating 14 over an envelope of hard resin 12 that defines an outer periphery of the casing. As explained in paragraphs [0021] and [0027] with respect to the first embodiment and paragraph [0033]with respect to the second embodiment, the soft resin coating 14, 14' serves as a soundproofing cover.

Independent claims 1 and 7 now expressly state that a cover is arranged on an outer periphery of the casing, where the cover is molded out of a soft resin containing a rubber and forms an outer layer. The claims also make clear that the hard resin layer forming the outer periphery of the casing is an inner layer.

French et al

The patent to French et al teaches a fuel injection valve with a metal casing 70 and a soft rubber cover 110, which is arranged on the outer periphery of the casing 70. The Examiner asserts that the envelope 98 is made of a hard resin and conceals the outer periphery of the coil 66 and the cover 110.

Notwithstanding the Examiner's reference to Fig. 1 and col. 6, lines 49+, for a teaching with respect to the relationship between the hard and soft resin coatings, the hard resin cover 98 in French is located over the periphery of the soft resin 110. By contrast, claims 1, 3, 7 and 9, as amended to specify that the soft resin forming an outer layer is over the hard resin coating forming an inner layer. Thus, these claims cannot be anticipated.

Based upon these differences, which provides the advantages of a better sound and vibration proofing, the claims clearly are distinguishable over the prior art. The Examiner's

comments in the Response to Arguments section at page 5 of the Office Action appear to acknowledge this distinction. Thus, these claims should now be considered novel.

Moreover, to the extent that the Examiner may consider asserting that "it would have obvious to one having ordinary skill in the art at the time the invention was made to provide the fuel injector of French et al. with the hard resin envelop concealed within the soft resin cover, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art.", as the Examiner did with respect to independent Claim 6, this position would not have merit for the reasons given subsequently with respect to that rejection..

Claim Rejections – 35 USC 103

Clams 4-6, 10 and 11 are rejected under 35 USC 103(a) as being unpatentable over French et al in view of Takehisa et al. This rejection is traversed for at least the following reasons.

Claims 4, 5, 10 and 11 are patentable because of their dependency from amended independent claims 1 and 7, respectively.

Independent claim 6 is patentable because it states that a cover is arranged over an outer periphery of the casing, where the cover is made of a soft resin containing a rubber. An envelope, which conceals an outer periphery of a coil and a portion extending to the connector, is molded out of a hard resin, wherein the envelope is concealed within the cover.

Moreover, in the disclosure of French, the soft resin (damping material) is disposed radially inside the hard resin (outer layer) and at the upper portion of fuel injector, so as to have a constant radial width. Hence, Noise/Vibration is not sufficiently suppressed as compared to the invention of Claim 6 in which the soft resin is disposed radially outside the hard resin. Namely, it is necessary that the soft resin is arranged radially outside the hard resin, for example in order to design an enveloping area and the radial width of soft resin (first embodiment, second embodiment, or in various shapes) by means of a structural design taking a Noise/Vibration transfer characteristic into account (e.g., to avoid resonance points). Even if the soft resin and the hard resin of French are merely reversed, the advantages (e.g., sufficient suppression of

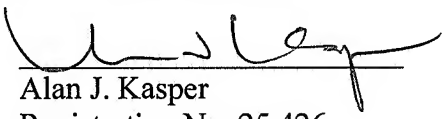
Noise/Vibration) as the invention of Claim 6 are not produced. Moreover, the design concept (i.e., invention object) that is the capability of controlling Noise/Vibration in the invention of Claim 6 is also different from the object of French. Furthermore, the sentences "Of course, the damping material 110 must bond with the body portion to be effective." and "As long as the injector includes a damping layer sandwiched between two layers of relatively stiffer material, the constrained layer damping technique can be effectively used." were described in Col. 7, line 3-13 of French. Each of these sentences is a teaching preventing one having ordinary skill in the art from being motivated to reverse the soft resin and the hard resin of French.

Takehisa et al does not remedy the deficiencies of French et al. Takehisa et al is simply cited for a ratio of 50-50 resin to rubber and a ratio of 90:20. The Examiner recognizes this deficiency but asserts that it would be obvious to modify French et al to have that ratio. Applicants submit that the presently claimed arrangement in claim 6 is not obvious from the limited teachings of the two cited references.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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